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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Luciano Lenzini

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03/26/2008

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EXAMINER

NGUYEN, KHAI MINH

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/630,971	Applicant(s) LENZINI ET AL.	
	Examiner KHAI M. NGUYEN	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 January 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,6-10,14-20,24,25 and 56 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,6-10,14-20,24,25 and 56 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's election with traverse of Group I in the reply filed on 1/18/2008 is acknowledged. The traversal is on the ground(s) that is not serious burden upon the examiner. The Applicant argues the restriction mail 1/18/2008 with traverse, that it would not impose a serious burden upon the Examiner. However, the Examiner respectfully disagrees with the Applicant's argument as stated above. The present application appears containing two inventions. Invention I deals with the operation that enables a data transmission method in a communication system, the system comprising at least one base station and at least one subscriber station, wherein the at least one subscriber station allocates capacity for connections (455/450 (a mobile station is assigned a communication resource for communication)); Invention II deals with the operation that enables a data transmission based on priority (455/435.2). Therefore, two inventions would require different search and consideration throughout prosecution.

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1, 6-10, 14-20, 24-25, and 56 are rejected under 35 U.S.C. 103(a) as being unpatentable over IEEE Std 802.16-2001 in view of Choi et al. (U.S.Pat-6272117).

Regarding claim 1, IEEE teaches a data transmission method comprising:

first transmitting from a subscriber station at least one capacity request message (pg.86, section 6.2.6.1);

granting a capacity subscriber station-specifically by a base station (pg.83, section 6.2.5);

second transmitting at least one capacity grant message from the base station (pg.83, section 6.2.5);

connection-specifically allocating the granted capacity by the subscriber station (pg.84, section 6.2.5.2);

fourth transmitting data from the subscriber station according to a capacity allocation (pg.86, section 6.2.6.1); and

monitoring by the base station of at least one of capacity request messages (pg.63, section 6.2.5), capacity grant messages and received transmissions (pg.84, table 58).

IEEE fails to specifically disclose transmitting from the subscriber station at least one message wherein the at least one message comprises information based on previous capacity requests. However, Choi teaches transmitting from the subscriber station at least one message wherein the at least one message comprises information based on previous capacity requests (col.3, lines 46-52). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to apply the teaching of Choi to IEEE to be minimizes collisions in the communication and reduces the number of retries needed for a successful transmission.

Regarding claim 6, IEEE and Choi further teach the method of claim 1, wherein the monitoring comprises monitoring data based on messages and transmissions using a memory table (see IEEE, table 58, pg.85, section 6.2.5-6.2.5.4).

Regarding claim 7, IEEE and Choi further teach the method of claim 1, wherein the third transmitting comprises transmitting an update message that replaces at the base station a previous information connection-specific (see Choi, col.3, lines 46-52).

Regarding claim 8, IEEE and Choi further teach the method of claim 1, wherein the third transmitting comprises transmitting an update message that replaces information based on a need for bandwidth for a connection (see IEEE, pg.87, section 6.2.6.3).

Regarding claim 9, IEEE and Choi further teach the method of claim 1, wherein the monitoring by the base station comprises using information based on the request messages (see IEEE, pg. 86, section 6.2.6.1), the capacity grant messages and the received transmissions for avoiding a mismatch between a granted capacity and data received from a subscriber station (see Choi, col.3, lines 19-29).

Regarding claim 10, IEEE teaches a communication system, the system comprising:

first transmitting means for transmitting capacity request messages (pg.86, section 6.2.6.1);

granting means for granting a capacity subscriber station-specific (pg.83, section 6.2.5);

second transmitting means for transmitting capacity grant messages (pg.83, section 6.2.5);

allocating means for connection-specific allocating the granted capacity (pg.84, section 6.2.5.2);

fourth transmitting means for transmitting data according to the capacity allocation made by a subscriber station (pg.86, section 6.2.6.1); and

monitoring by the base station of at least one of capacity request messages (pg.63, section 6.2.5), capacity grant messages and received transmissions (table 58).

IEEE fails to specifically disclose third transmitting means for transmitting messages, wherein the messages comprise information based on previous capacity requests. However, Choi teaches third transmitting means for transmitting messages, wherein the messages comprise information based on previous capacity requests (col.3, lines 46-52). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to apply the teaching of Choi to IEEE to be minimizes collisions in the communication and reduces the number of retries needed for a successful transmission.

Regarding claim 14 is rejected with the same reasons set forth in claim 6.

Regarding claim 15 is rejected with the same reasons set forth in claims 7 and 8.

Regarding claim 16 is rejected with the same reasons set forth in claim 9.

Regarding claim 17, IEEE teaches a base station, the base station comprising:

granting means for granting a transmission capacity subscriber station-specific (pg.83, section 6.2.5);

monitoring by the base station of at least one of capacity request messages (pg.63, section 6.2.5), capacity grant messages and received transmissions (table 58).

IEEE fails to specifically disclose transmitting means for transmitting capacity grant messages to at least one subscriber station. However, Choi teaches transmitting means for transmitting capacity grant messages to at least one subscriber station (col.3, lines 46-52). Therefore, it would have been obvious to one having ordinary skill in the

art at the time the invention was made to apply the teaching of Choi to IEEE to be minimizes collisions in the communication and reduces the number of retries needed for a successful transmission.

Regarding claim 18, IEEE and Choi further teach the base station of claim 17, wherein the base station is configured to monitor data based on messages and transmissions using a memory table (see IEEE, table 58, pg.85, section 6.2.5-6.2.5.4).

Regarding claim 19, IEEE and Choi further teach the base station of claim 17, wherein the base station is further configured to avoid a mismatch between a granted capacity (see Choi, col.3, lines 19-29) and data received from a subscriber station using information based on request messages, capacity grant messages and received transmissions (see Choi, col.3, lines 46-52).

Regarding claim 20, IEEE teaches a subscriber station comprising:

first transmitting means for transmitting capacity request messages of at least one connection (pg.86, section 6.2.6.1);

receiving means for receiving capacity grant messages from a base station (pg.83, section 6.2.5);

allocating means for allocating connection-specific a capacity granted by a base station (pg.84, section 6.2.5.2);

third transmitting means for transmitting data according to a capacity allocation made by the subscriber station (pg.86, section 6.2.6.1).

IEEE fails to specifically disclose second transmitting means for transmitting messages, wherein the messages comprise information based on previous capacity requests of a subscriber station. However, Choi teaches second transmitting means for transmitting messages, wherein the messages comprise information based on previous capacity requests of a subscriber station (col.3, lines 46-52). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to apply the teaching of Choi to IEEE to be minimizes collisions in the communication and reduces the number of retries needed for a successful transmission.

Regarding claim 24, IEEE teaches a base station configured to:

receive capacity request messages from at least one subscriber station (pg.86, section 6.2.6.1);

grant a transmission capacity subscriber station-specific (pg.83, section 6.2.5), transmit capacity grant messages to the at least one subscriber station (pg.86, section 6.2.6.1); and

monitoring request messages received from the at least one subscriber stations (pg.63, section 6.2.5), capacity grant messages sent by a base station and data transmissions received from the at least one subscriber station (not show)

IEEE fails to specifically disclose capacity grant messages sent by a base station and data transmissions received from the at least one subscriber station. However, Choi teaches capacity grant messages sent by a base station and data transmissions received from the at least one subscriber station (col.3, lines 46-52). Therefore, it would

Art Unit: 2617

have been obvious to one having ordinary skill in the art at the time the invention was made to apply the teaching of Choi to IEEE to be minimizes collisions in the communication and reduces the number of retries needed for a successful transmission.

Regarding claim 25, IEEE teaches a subscriber station configured to:

transmit capacity request messages of at least one connection (pg.86, section 6.2.6.1);

allocate connection-specific a capacity granted by a base station (pg.84, section 6.2.5.2);

transmit data from a subscriber station according to a capacity allocation made by the subscriber station (pg.86, section 6.2.6.1).

IEEE fails to specifically disclose transmit messages wherein the messages comprise information on previous capacity requests. However, Choi teaches transmit messages wherein the messages comprise information on previous capacity requests (col.3, lines 46-52). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to apply the teaching of Choi to IEEE to be minimizes collisions in the communication and reduces the number of retries needed for a successful transmission.

Regarding claim 56, IEEE teaches a method, comprising:

transmitting capacity request messages of at least one connection (pg.86,

section 6.2.6.1);

receiving capacity grant messages from a base station (pg.83, section 6.2.5);
connection-specifically allocating a capacity granted by the base station (pg.84,
section 6.2.5.2);

for transmitting data according to a capacity allocation made by the subscriber
station (pg.86, section 6.2.6.1).

IEEE fails to specifically disclose transmitting messages, wherein the messages
comprise information based on previous capacity requests of a subscriber station.
However, Choi teaches transmitting messages, wherein the messages comprise
information based on previous capacity requests of a subscriber station (col.3, lines 46-
52). Therefore, it would have been obvious to one having ordinary skill in the art at the
time the invention was made to apply the teaching of Choi to IEEE to be minimizes
collisions in the communication and reduces the number of retries needed for a
successful transmission.

Conclusion

3. Any inquiry concerning this communication or earlier communications from the
examiner should be directed to KHAI M. NGUYEN whose telephone number is
(571)272-7923. The examiner can normally be reached on 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's
supervisor, Vincent P. Harper can be reached on 571.272.7605. The fax phone number
for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2617

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Khai M Nguyen/
Examiner, Art Unit 2617

3/14/2008

/VINCENT P. HARPER/
Supervisory Patent Examiner, Art Unit 2617